

Lotus Evija: the world's first pure electric British hypercar

- Lotus Evija – the first all-electric British hypercar – makes its world debut in London
- Target power output of 2,000 PS makes it the world's most powerful series production road car
- Target 0-62 mph (0-100km/h) in under three seconds, top speed over 200 mph (320 km/h)
- Ultra-lightweight carbon fibre monocoque makes it the world's lightest production EV hypercar, at 1,680kg
- Pure electric driving range target of 250 miles (400 km)
- Mid-mounted battery pack echoes celebrated Lotus mid-engined sports car layout
- World-first main and dipped beam laser lighting technology
- Comprehensive personalisation and experiential programmes for customers
- Designed, engineered and hand-built at Lotus' famous home in Hethel, UK
- Cements the UK's position as the world leader in high-performance, advanced technology automotive manufacturing
- Lotus Evija production limited to just 130 cars – in tribute to its Lotus 'Type' number, 130 – beginning in 2020

(London, UK – 16 July 2019) – The world's first fully electric British hypercar, the all-new Lotus Evija, has been revealed. With unparalleled performance and a target power output of 2,000 PS, it sets new standards in terms of advanced EV engineering. Quite simply, the Lotus Evija is the most powerful series production road car ever built.

Like all Lotus cars throughout the brand's storied 71-year history, the Evija has been precision-engineered to deliver an outstanding driving experience both on the road and track. It is the most dynamically accomplished model ever built by the company, setting new standards for Lotus driving performance. Above all else, it is 'For The Drivers'.

As a name, Evija (pronounced 'E-vi-ya') means 'the first in existence' or 'the living one'. It is highly appropriate; Lotus has an unquestionable reputation for its pioneering approach in both automotive and motorsport.

The Evija marks the start of an exciting new chapter in the history of an iconic and much-loved British sports car brand. It is the first hypercar from Lotus, and the company's first model with an electrified powertrain. As the first completely new car to be launched under the stewardship of Geely – the world's fastest growing automotive group – its significance cannot be overstated.

Exclusivity and desirability go hand in hand in the world of hypercars, and the Evija is blessed with an abundance of both. Production is limited to not more than 130 examples, making it among the most exclusive cars ever launched. It's a figure set in tribute to the car's project code, Type 130. Lotus road and race cars throughout the brand's seven decades of success have been assigned a Type number, and the Evija is no exception.

Hethel, close to the historic city of Norwich in the east of England, UK, has been the home of Lotus since 1966. The company has confirmed production of the Evija will begin there during 2020.

As well as tempting the world's hypercar buyers, the car will act as a halo for the rest of the Lotus range – the renowned Elise, Exige and Evora. It will do the same for a range of eagerly anticipated new Lotus performance models to come.

Speaking at the unveiling in London, Lotus Cars CEO Phil Popham said: "The Lotus Evija is a car like no other. It will re-establish our brand in the hearts and minds of sports car fans and on the global automotive stage. It will also pave the way for further visionary models."

He added: "This is another amazing moment in the history of our company. The Evija is a true Lotus in every sense – it has been developed with an unwavering passion to push boundaries, to explore new ways of thinking and to apply ground-breaking technologies."

A stunning piece of contemporary automotive design, the Evija features a dramatic Venturi tunnel through each rear quarter, giving it a truly breath-taking presence.

Russell Carr, Design Director, Lotus Cars, said: "We studied how Le Mans race cars use air flow creatively to go over, under and around the vehicle, but also through it. This concept of 'porosity' is key to the Evija and has enabled us to create a timeless design with exceptional amounts of downforce."

The Evija signals the start of a contemporary new design language for Lotus, which will evolve and reappear on future high-performance cars.

Illustrative of the innovative thinking and ingenuity which has always been part of the Lotus DNA, the Evija is a technical tour de force. It continues the legendary Lotus bloodline that's rich in firsts and technical game-changers, both in the automotive and motorsport sectors. While it is a glimpse of the future from Lotus, it remains true to the company's DNA and the guiding principles of founder Colin Chapman, who built the first Lotus in 1948.

The Evija is the first Lotus road car to feature a one-piece carbon fibre monocoque chassis. The cabin, from the fully adjustable race-style seats to the multi-function steering wheel, is the very pinnacle of motorsport-inspired road car design and technology.

At the heart of the Evija is an ultra-advanced all-electric powertrain. It has been developed by technical partner Williams Advanced Engineering, famed for success in motorsport, from Formula One to electrifying the first four seasons of Formula E. The battery pack is mid-mounted immediately behind the two seats and supplies energy directly to four powerful e-motors. This highly efficient system is the lightest, most energy dense, electric power package ever fitted to a road car. With a target weight of just 1,680 kg, it will be the lightest pure electric hypercar ever to go into series production.

Engineered for precise and sustained performance, the Evija has five driving modes – Range, City, Tour, Sport and Track. It can race from 0-62 mph (0-100 km/h) in under three seconds and accelerate to a top speed of more than 200 mph (0-320 km/h).

Matt Windle, Executive Director, Sports Car Engineering, Lotus Cars, said: "Every element of the Evija has been meticulously analysed and validated. Precision engineering is nothing without human engagement, and that's why technology with soul is the benchmark for this and every Lotus."

The Evija is priced from £1.7m plus duties and taxes. A £250,000 deposit secures a production slot. Order books are now open through www.lotuscars.com.

The Lotus Evija in Detail

At first known only by its Lotus Type number – Type 130 – the car has been christened the Lotus Evija (pronounced 'E-vi-ya'). As a name it is derived from variations of Eve, and means 'the first in existence' or 'the living one'. It is highly appropriate; Lotus has an unquestionable reputation for its pioneering approach in both automotive and motorsport.

As the first all-electric British hypercar, the Evija continues that story of innovation. It also signals the start of an exciting new chapter for Lotus under the stewardship of Geely, the fastest growing automotive group in the world.

Lotus Cars CEO Phil Popham said: “Evija is the perfect name for our new car because it is the first all-new car to come from Lotus as part of the wider Geely family. With Geely’s support we are set to create an incredible range of new cars which are true to the Lotus name and DNA.”

A stunning exterior inspired by nature

The most striking element of the Lotus Evija is its exterior. From every angle the full carbon fibre bodywork is stretched taut, appearing shrink-wrapped over the mechanical components. Crouching low to the ground, with a ride height of just 105 mm, the pronounced muscular haunches envelop the teardrop cabin that sinks between them.

Taking inspiration from the aeronautics industry, the exterior is a perfectly proportioned blend of fluid forms and crisp lines. This is clearly illustrated by the gently curved but sharp leading edge of the bonnet, which is reminiscent of so many classic Lotus road and race cars.

Cues for the Evija’s surface language was also taken from nature. Russell Carr, Design Director, Lotus Cars, commented: “During the initial design stage we spent many hours studying images of geological forms – rocks that had been carved by nature over the centuries. We believe we’ve captured these beautiful, intriguing and elemental lines within the Evija.”

True to Lotus founder Colin Chapman’s core belief that every component should serve multiple purposes, the exterior design is also exceptionally efficient on every level. The most obvious example of this – and unquestionably the most dramatic element of the exterior – is the Venturi tunnel which pierces each rear quarter. Inspired by Le Mans race cars, they optimise air flow by directing it through the bodyshell.

Aside from creating a breath-taking presence, this design concept – known as ‘porosity’ – aids the delivery of high-energy air flow to the rear of the car. This in turn counteracts the low pressure behind the car to reduce drag. Furthermore, the Venturi effect inside the tunnels pulls air through the rear wheel arch louvres, maintaining air quality in the diffuser.

When viewed from the rear of the car, each tunnel is edged with a red LED to create a striking ribbon-style light signature. The result is a stunning visual effect that’s akin to the afterburners on a fighter jet, especially when seen at night. As an extra detail, an LED hidden within each tunnel illuminates its interior.

The directional indicators are incorporated into the corners of the ribbon, while the reversing light is provided by the illuminated ‘T’ of the ‘LOTUS’ wordmark above the integrated charging flap.

Another key feature of the Evija’s sophisticated aerodynamic system is the bi-plane front splitter. It’s another illustration of form and function working perfectly in tandem. Designed in three sections, the larger central area provides air to cool the battery pack – mid-mounted behind the two seats – while the air channelled through the two smaller outer sections cools the front e-axle. Lotus aficionados may notice a respectful nod to the iconic Type 72 Formula 1 car, with its square front central section and two side wings.

Active aerodynamics for exceptional downforce

The Evija is the first Lotus road car to ever feature a full carbon fibre chassis. Moulded as a single piece for exceptional strength, rigidity and safety, the full length of the underside is sculpted to optimise downforce. It includes an integrated air diffuser which extends from under the B-pillars to the rear.

Active aerodynamics are deployed in the form of a rear spoiler, which elevates from its resting position flush to the upper bodywork, and an F1-style Drag Reduction System (DRS). Both are deployed automatically in Track mode, though can be deployed manually in other modes.

The absence of traditional door mirrors plays a part in reducing drag. Cameras integrated into the front wings are electronically deployed on unlock, while another camera built into the roof provides a central view. Images are displayed on three interior screens.

Advanced pure EV powertrain means record-breaking power

With target figures of 2,000 PS of power and 1,700 Nm of torque, the Lotus Evija is the world's most powerful production road car. Key to that exceptional power output is the 2,000 kW lithium-ion battery, supplied with its management system by Williams Advanced Engineering (WAE) as part of a joint venture with Lotus to collaborate on advanced propulsion technologies. WAE won a 2018 Queen's Award for Enterprise for translating its EV expertise from the race track to road-going vehicles.

The battery pack is mounted centrally behind the passenger compartment, and its cover is visible through the glass rear screen. This positioning delivers significant advantages in terms of styling, aerodynamics, packaging, weight distribution, occupant comfort and dynamic handling. It also supports fast and convenient servicing and maintenance. Furthermore, the set-up has been designed so that in the future alternative battery packs – for example, to optimise track performance – can be easily installed.

Power is fed from the battery pack to a bespoke in-line axial arrangement of two high-power density e-motors. These feature integrated silicon carbide inverters and epicyclic transmission on each axle of the four-wheel drive powertrain. The motors and inverters being supplied by Integral Powertrain Ltd.

Four exceptionally compact, extremely light and highly efficient single-speed, helical gear ground planetary gearboxes transfer power to each driveshaft. Measuring a mere 100mm in depth, each gearbox comes packaged with the e-motor and inverter as a single cylindrical Electrical Drive Unit (EDU). With a target power of 500 PS per e-motor, this is the most efficient and elegant engineering solution to deploying so much power with precision.

Torque-vectoring, enabled by the four e-motors, provides exceptional dynamic response and agility on the road. This fully automatic, self-adjusting system can instantly distribute power to any combination of two, three or four wheels within a fraction of a second. In Track mode the ability to add more power to individual wheels enables the radius of corners to be tightened, potentially reducing lap times.

The Lotus Evija is equipped with ESP stability control to ensure safety in all road conditions, with further grip provided by the four-wheel drive system. A pure steering feel – a vital ingredient of every Lotus – is assured via an electro-hydraulic system.

The car is built on a one-piece motorsport-inspired carbon fibre monocoque chassis. It is supplied by CPC, the Modena, Italy-based world-leader in composite technology. Constructed from multiple carbon plies, the manufacturing process is identical to that of an F1 chassis, and ensures the lightest, stiffest, safest and most technically advanced Lotus road car platform ever built. The total weight of the monocoque tub is a mere 129kg.

This chassis, coupled with innovative engineering and clever packaging throughout every element of the Evija's powertrain, has contributed to the class-leading target weight of 1,680kg in its lightest specification.

Precision performance guaranteed

As with every Lotus, the Evija is 'For The Drivers' and its searing pace is delivered in one seamless, sustained surge. The 0-62 mph (0-100 km/h) sprint is completed in under three seconds, while the top speed is in excess of 200 mph (340 km/h).

These headline statistics only tell part of the car's performance story. Matt Windle, Executive Director, Sports Car Engineering, Lotus Cars, explained: "The Lotus Evija has astonishing acceleration at higher speeds. It takes less than nine seconds to reach 300 km/h which is better than any other direct competitor."

Further performance figures include acceleration from 100-200 km/h in less than three seconds, and 200-300 km/h in less than four seconds.

Power can also be delivered over a sustained period. The car's advanced aerodynamics and four-radiator cooling package keep the battery at an optimum temperature. It means that the Evija is capable of being driven flat-out with no derate for at least seven minutes in Track mode.

Matt Windle continued: "With the Lotus Evija we have an extremely efficient electric powertrain package, capable of delivering power to the road in a manner never seen before. Our battery, e-motors and transmission each operate at up to 98% efficiency. This sets new standards for engineering excellence."

As part of the development and validation process, Lotus and Williams Advanced Engineering have conducted thousands of hours of virtual testing and digital analysis. This comprehensive programme will ensure the car's meets its performance targets and exceeds customers' expectation.

As a pure EV the Evija will be ultra-quiet at low speeds. During this time regulations require that it emits a digitally created sound – transmitted via a front-mounted speaker – which will alert pedestrians to its presence.

While the flowing lines create a very organic look, Russell Carr, Design Director, Lotus Cars, believes that it is important that the car visually conveys its technical achievements. "When you look through the rear glass, you can see the battery pack cover and the in-board suspension. This link between the human and the precision engineering is essential for a Lotus. We want people to have the sense that they are engaging with the power and performance of the car. We refer to it as technology with soul."

A revolution in charging

Not only does the Lotus Evija feature the world's most powerful automotive drivetrain, it also boasts the world's fastest charging battery. Thanks to the partnership with Williams Advanced Engineering, the battery has the ability to accept an 800kW charge. Although charging units capable of delivering this are not yet commercially available, when they are it will be possible to fully replenish the battery in just nine minutes.

Using existing charging technology – such as a 350kW unit, which is currently the most powerful available – the Evija's charge time will be 12 mins to 80% and 18 mins to 100%. The car's range is 250 miles (400 km) on the WLTP Combined Cycle, or 270 miles on the NEDC Combined Cycle. Lotus is in discussions with external suppliers on a charging solution for customers.

The CCS2 charging socket is hidden behind a vented flap at the rear of the car. In the same location is a small plaque, reminding customers of the Britishness of the Evija.

Motorsport-inspired interior is a technical tour de force

The interior of the Lotus Evija is as dramatic as the exterior. Inspired by the technical precision of race car engineering, the dominant characteristic of the cabin is the 'floating wing' dashboard which can be glimpsed from outside through the windscreen. The design also echoes the porosity of the exterior.

"The shape is inspired by the company's prototype racing cars of the late Fifties and early Sixties," explained Russell Carr, Design Director, Lotus Cars. "It has a beauty and an elegance to it, and represents a typically Lotus approach because it performs multiple functions. It houses the

instrument panel and air ducts, and is also an integral structural support. It reinforces Colin Chapman's cast-iron rule that no Lotus component goes along for a free ride."

Access to the cabin is through the two dihedral doors. Handle-free to preserve the sculpted exterior, they're operated via the key fob. It's the first time Lotus has used such doors, and while they make for a moment of dramatic theatre they also provide maximum space for getting in and out.

An exceptional attention to detail – as people would expect from Lotus – is at the heart of the interior. For example, visible carbon fibre surfaces enhance the sense of light weight, while a thin metal band – engraved with the words 'For The Drivers' – runs centrally through the squab of both seats.

Once in the car, a switch in the roof console closes the doors. The location aids the minimalist layout of the main control panel and prevents them being activated accidentally. Russell Carr, Design Director, Lotus Cars, explained it's in tribute one of the most iconic Lotus cars, commenting: "Versions of the Lotus Esprit Turbo featured a huge roof console in the late Seventies and early Eighties. It's not something you might expect on a contemporary hypercar but Lotus fans will love the connection."

Inside, the cabin strikes the perfect balance between the precise functionality of a track car and the comfort of a road car. The driving position is fully adjustable to accommodate the greatest range of occupants. The elegant carbon fibre shell seats are hand-trimmed with thick Alcantara-finished pads, and feature manual fore / aft adjustment plus electric back operation. The steering column is manually adjustable for both rake and reach. Three-point seatbelts are fitted as standard, with four-point harnesses an option. Built into the bodyshell, close to the occupants' hip point, are two bespoke storage areas.

The design of the steering wheel, similar to that found in an LMP or F1 car, further reinforces the Evija's sporting intentions. The outer ring is finished in Alcantara as standard with leather available as an option. Buttons are grouped in an intuitive manner and govern functions including phone use, cruise control and DRS deployment.

Mounted centrally at the base of the wheel's hub is the mode controller. There are five modes – Range, City, Tour, Sport and Track – with various of the car's performance features activated or deactivated depending on which is selected.

Ahead of the steering wheel is a state-of-the-art digital display, providing the driver with key information such as mode, battery charge and remaining range. It is the car's only screen, putting all necessary information in one place. The screen displays essential functions only, with information appearing as required when the appropriate button is pushed, then fading when no longer needed.

Further controls are located on the floating 'ski slope-style' centre console, which features touch-sensitive haptic feedback buttons. Each is integrated in hexagonal recesses to help guide the driver's fingers. As the light plays over the surface it creates an almost organic visual effect. The driver can also interact intuitively with the car's technology via a control wheel. The honeycomb design of the buttons is replicated on indicator stalks and on the surface of the aluminium foot pedals.

The Evija's cabin has been deliberately designed so that the occupants feel they are at one with the vehicle. "At the core of the appeal of any Lotus is that the driver is in sync with the car at all times and almost feels as if they are wearing it," said Russell Carr, Design Director, Lotus Cars. "Looking out from behind the wheel, it's a wonderfully emotional moment to be able to see the bodywork outside, both in front and behind you. That's something we hope to enhance in future Lotus models."

Climate control and a premium infotainment system are fitted as standard. Customers can seamlessly integrate their smartphones via Apple CarPlay and Android Auto, accessing their own music and navigation.

Extreme track performance and on-road comfort

Calibrated to provide the optimum blend of extreme track performance and on-road comfort, the Evija's motorsport-derived suspension features three adaptive spool-valve dampers for each axle. Two are corner dampers with a third to control heave. These are mounted in-board to optimise the aerodynamic performance. They are manufactured by Multimatic, specialists in developing high-performance suspension technology for on-road, off-road and motorsport applications including Formula 1.

Magnesium wheels provide optimum lightness and strength, and are sized 20 and 21 inches at the front and rear respectively. They are shod with Pirelli Trofeo R tyres, developed specifically to achieve ultimate performance. To deal with the Evija's extreme performance, the car is equipped with a forged aluminium AP Racing braking system with carbon ceramic discs front and rear.

World-first laser lighting technology

The Lotus Evija is the first production road car in the world to feature laser lights for both main and dipped beams. Produced by Osram, the lighting modules are very compact and will provide an outstanding view of the road or track ahead. The strikingly thin vertical headlamps provide the perfect balance of crystal-like beauty and a highly technical design. Inside the lenses, unique 'wing-like' elements form the daytime running lights and directional indicators.

Connected to the cloud

The Evija is the first Lotus to provide drivers with a full suite of digital connected infotainment, which will benefit from over-the-air software updates. A powerful on-board modem enables communication to the cloud, and the driver can interact with that data through a Lotus smartphone app. The app will enable drivers to monitor their Evija from anywhere in the world, for example, to check the battery charge status and driving range. It will also support remote use of air-con, to heat or cool the cabin ahead of the next drive.

The Evija's infotainment system includes a chronograph to allow the driver to record their lap times. Connection to the cloud means they can view their performance while at the track and recall previous sessions through the app.

The ultimate in personalisation

Lotus will offer Evija customers an unparalleled level of personalisation, enabling them to specify the car exactly as they wish. This will include the opportunity to select unique paint finishes, interior trims and detailing.

Marquetry-style badging will provide further bespoke opportunities. Lotus has developed the ability to inlay metal elements directly into the carbon fibre bodyshell, so that the badge sits completely flush with the bodywork. Currently the Evija carries a partial Union Flag badge on the C-pillar, signifying its status as a British-built hypercar. However, this could be another flag, a family crest or personal logo.

"This marquetry-style badging is similar to that associated with traditional cabinet-making, where you inlay different colours of wood," explained Russell Carr, Design Director, Lotus Cars. "On the Evija it's really is up to the customer to choose whatever materials and designs appeal to them."

Lotus is also developing a comprehensive programme of bespoke experiential activities for Evija owners. These will include VIP track days and other high-performance motorsport opportunities.

Putting the customer first

The Lotus Evija has been designed and engineered at Lotus' historic home in Hethel, UK, and production will begin in a new dedicated on-site manufacturing facility during 2020.

A maximum of 130 examples will be built, guaranteeing exclusivity to match the stunning looks, ground-breaking technology and world-beating performance. They will be sold directly to customers by Lotus, with the global network of 220 retailers in support. Plans to service and maintain the car for each owner are currently in development.

The Lotus Evija is priced from £1.7m plus duties and taxes. A £250,000 deposit secures a production slot. Order books are now open through www.lotuscars.com

Built in Great Britain, great for Great Britain

The UK is already recognised as a world-leader in high-performance automotive production. Lotus has been at the heart of that success for 71 years. The Evija will further cement the global status and reputation of this important UK industry sector, and its associated and diverse supply chain.

However, as the first all-electric hypercar from a British car maker, the launch of the Evija sees Lotus deliver an opportunity for new and exciting expansion of the sector. Increasing consumer awareness and demand for the astonishing performance available through EV powertrains means new growth and new skills, and Lotus intends to be key player in that revolution.

A true Lotus in every sense

The Lotus Evija is faithful in concept and detail to the pioneering principles which company founder Colin Chapman used to build his first car in 1948. In common with every new Lotus, the Evija has been seen by members of the Chapman family. At a private viewing of the Evija, Hazel Chapman – Colin's widow – commented: "It's very beautiful and I can't wait to see it on the road."

As with every Lotus, the Evija features the initials ACBC (Anthony Colin Bruce Chapman) in its badge. Chapman guided the company to astonishing levels of success on the road and track before his untimely death in 1982, aged just 54. Seven Formula One constructors' championships and six Formula One drivers' titles tell only a small part of the story. His pioneering approach to engineering led to an incredible range of world-first technical innovations.

- Type 14: the world's first composite monocoque production road car (Elite, 1957)
- Type 25: the world's first fully-stressed monocoque F1 car, and the first Lotus to win F1 world championship (1963)
- Type 72: the most successful F1 car of all time and the blueprint for F1 car design for many years (Championship winner in 1970, 1972 and 1973)
- Type 78: the world's first 'ground effect' F1 car (1977)
- Type 88: the world's first carbon fibre F1 car (1981)
- Type 92: the world's first active suspension F1 car (1983)
- Type 111: the world's first aluminium and bonded extrusion construction production car (Lotus Elise, 1995)
- Type 130: the Lotus Evija, the first fully electric British hypercar (2019)

Lotus Evija – did you know?

- With a target power output of 2,000 PS, the Lotus Evija has more power at each wheel than the total power of any other Lotus road car ever produced.
- The Lotus Evija produces 1,700 Nm of torque. In a tug-of-war, you could put four of the Lotus Evora Sport 410 at the other end of the rope and still not out-pull it.

- At the heart of the Lotus Evija is a 2,000 kW battery. That means it's eight times more powerful than a Formula E race car. Put another way, it's enough electricity to boil more than 1,600 domestic kettles.
- The 'mid-mounted' positioning of the battery pack provides advantages in terms of aerodynamics and weight distribution to optimise handling. It also echoes the celebrated Lotus mid-engined sports car layout.
- The Lotus Evija has a Venturi tunnel through each rear quarter. These are named for the Venturi Effect, the reduction in air pressure which results when it flows through a constricted section of a pipe. It was discovered by Giovanni Venturi, an Italian physicist, in 1797 – exactly 222 years ago.

Lotus Evija: fact file

	NOTE: THESE ARE TARGET SPECIFICATIONS
Name	Lotus Evija (Type 130)
Powertrain	Pure electric, 4WD
Power	The target is to be the most powerful production car in the world, at 2,000 PS
Battery power	70 kw/h / 2,000 kW
Torque	1,700 Nm with torque vectoring
0-100 km/h (0-62 mph)	Under three seconds
0-300 km/h (0-186 mph)	Under nine seconds
Max speed	In excess of 200 mph (320 km/h)
All-electric range (WLTP Combined)	250 miles (400 km)
Charging time (350kW charger)	18 mins
Weight	1,680 kg
Production run	Maximum of 130 cars
Overall dimensions (L/W/H)	4,459 / 2,000 / 1,122 mm
Price	From £1.7m + duties and taxes
Reservation process	£250k deposit secures a production slot
Start of Production	2020

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